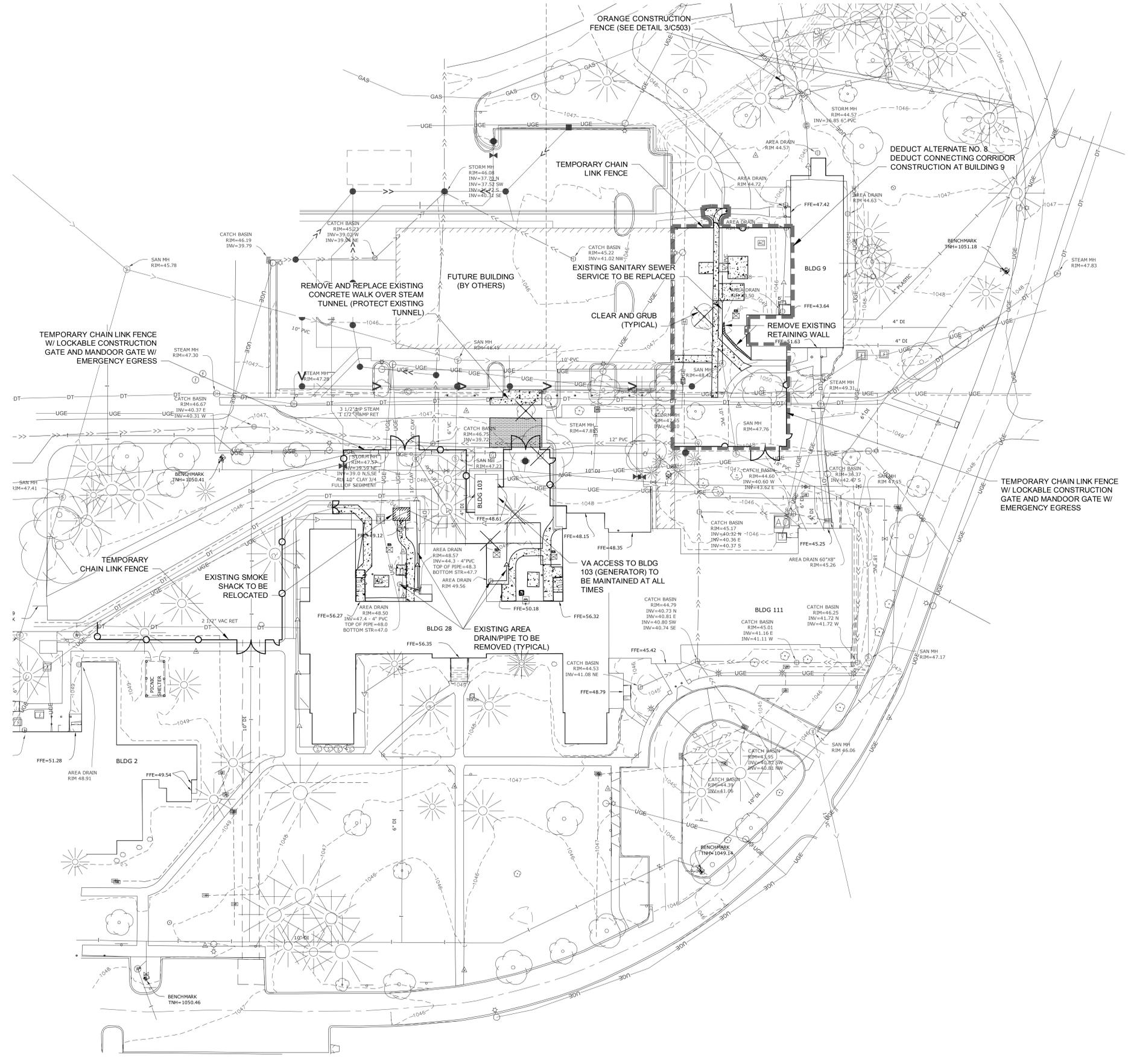
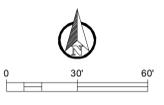


three eighths inch = one foot  
 one half inch = one foot  
 one quarter inch = one foot  
 one eighth inch = one foot



- NOTES:**
1. THE UNDERGROUND UTILITIES SHOWN HAVE NOT BEEN LOCATED FROM FIELD SURVEYED UTILITY MARKINGS. THE UTILITIES SHOWN ARE FROM EXISTING DRAWINGS SUPPLIED BY THE OWNER (VA). THE SURVEYOR MAKES NO GUARANTEE THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
  2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION, INCLUDING INSTALLATION OF CONSTRUCTION FENCE. CALL GOPHER STATE ONE CALL: 1-800-252-1166.
  3. TEMPORARY CHAIN LINK CONSTRUCTION FENCE (8' TALL) SHALL BE PROVIDED AROUND ENTIRE PERIMETER OF CONSTRUCTION AREA. CONTRACTOR SHALL COORDINATE ACCESS THROUGH CONSTRUCTION FENCE WITH DAILY CONSTRUCTION ACTIVITY. ALL ENTRANCES/OPENINGS SHALL BE ENCLOSED AT ALL TIMES AND MONITORED FOR PASSAGE OF EQUIPMENT.
  4. EQUIPMENT AND MATERIALS MAY NOT BE LEFT OVERNIGHT BEHIND ORANGE CONSTRUCTION FENCE.
  5. COORDINATE WITH THE VA FOR WORK TO TAKE PLACE OUTSIDE THE LIMITS OF THE TEMPORARY CONSTRUCTION FENCE.
  6. CONSTRUCTION LIMITS ARE TO ENCOMPASS PROJECT AREA. EQUIPMENT AND MATERIALS STORAGE/STAGING AND CONTRACTOR PARKING. NO OTHER AREA WILL BE MADE AVAILABLE TO THE CONTRACTOR FOR THESE PURPOSES DURING THE COMPLETION OF THE PROJECT. SEE ARCHITECTURAL SITE PLAN, SHEET AS001 FOR ADDITIONAL INFORMATION REGARDING CONSTRUCTION LIMITS AND STAGING.
    - CONTRACTOR PARKING: 10 PARKING STALLS WILL BE ALLOWED AT THE EAST CONTRACTOR PARKING LOT (PERMIT REQUIRED)
    - CONTRACTOR STORAGE TRAILER: 1 STORAGE TRAILER WILL BE ALLOWED AT THE EAST CONTRACTOR PARKING LOT
    - THE VA IS NOT RESPONSIBLE FOR ITEMS LOST OR STOLEN FROM CONTRACTOR VEHICLES OR STORAGE TRAILER
  7. CONSTRUCTION STAGING AREA WEST OF BUILDING 28 IS TO BE REMOVED FOLLOWING COMPLETION OF PHASE 2 SHELL. RESTORE AND REESTABLISH TURF PER PROJECT GENERAL NOTES AND SPECIFICATIONS.
  8. ALL OPEN TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY. NO OPEN TRENCHES ALLOWED OVERNIGHT.
  9. ALL EXCESS SOILS SHALL BE REMOVED FROM SITE.
  10. COORDINATE REMOVALS WITH ARCHITECTURAL PLANS.
  11. PROTECT EXISTING TREES NOT DESIGNATED TO BE REMOVED.

- LEGEND**
- EXISTING CONCRETE TO BE REMOVED
  - EXISTING BITUMINOUS TO BE REMOVED
  - DEDUCT ALTERNATE NO. 8 (TYPICAL ALL CIVIL PLAN SHEETS)



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No.	REVISION	DATE



Alexandria Office  
 120 17th Avenue W  
 Alexandria, MN 56308  
 (507) 762-1290

St. Cloud Office  
 5539 West St. Germain, Suite 250  
 St. Cloud, MN 56301  
 (507) 217-5537



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 DATE: 12-20-2013

<b>DRAWING TITLE</b>	<b>PROJECT TITLE</b>	<b>DATE</b>
EXISTING CONDITIONS AND SITE DEMOLITION PLAN	RECONFIGURE/EXPAND BUILDINGS 28 & 9 RESIDENTIAL REHABILITATION TREATMENT PROGRAM	12.20.2013
<b>APPROVED PROJECT DIRECTOR</b>	<b>DATE</b>	<b>PROJECT NO.</b>
		656-12-339

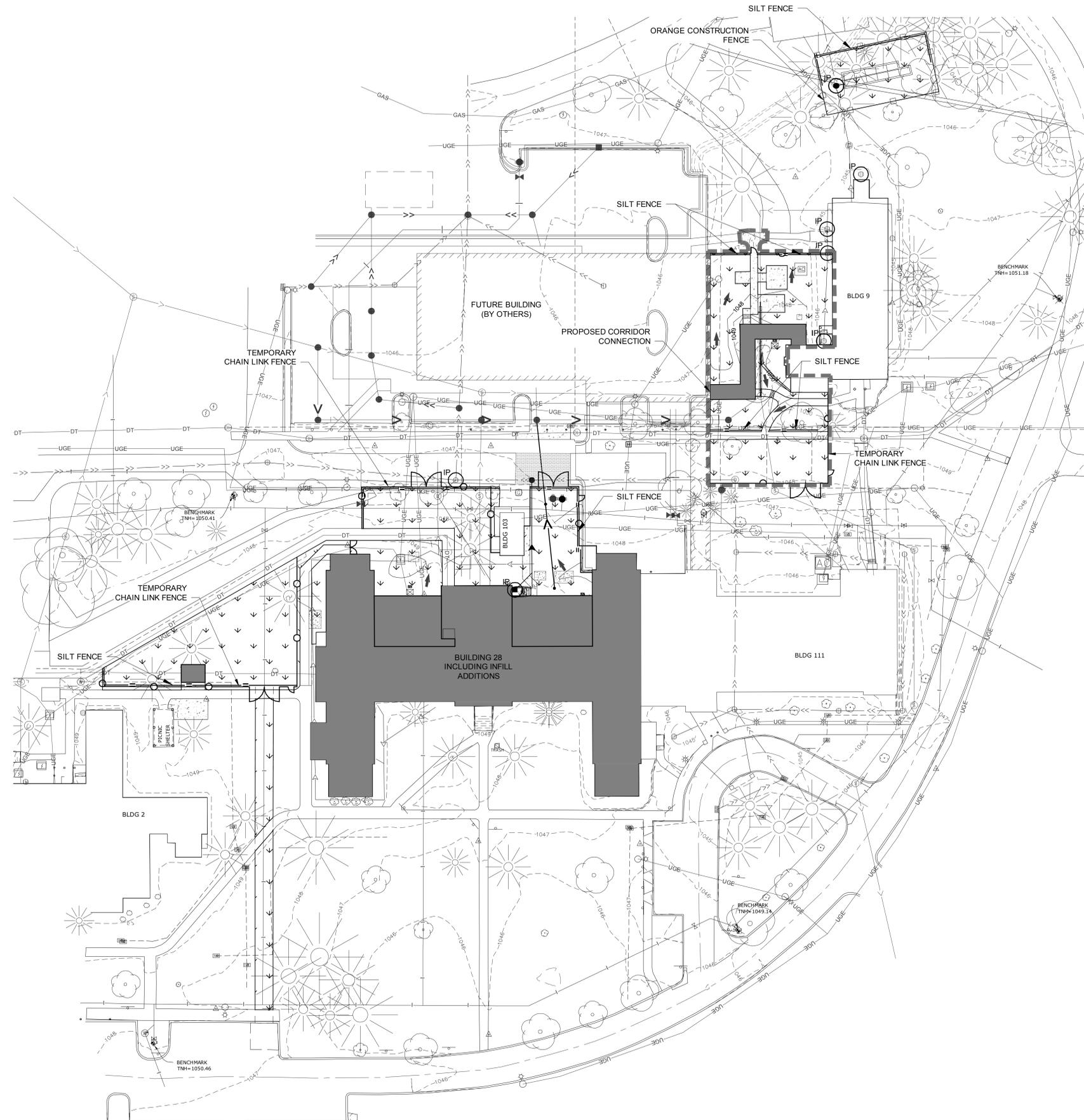
<b>DRAWING NO.</b>	<b>CHECKED BY</b>	<b>DATE</b>
28	DJF	GMD
<b>LOCATION</b>	<b>DRAWING NO.</b>	<b>CD FILE</b>
ST. CLOUD VA MEDICAL CENTER ST. CLOUD, MN 56303	CD101	



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three eighths inch = one foot  
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- LEGEND**
- CONCRETE WALK
  - BITUMINOUS PAVEMENT
  - TEMPORARY CHAIN LINK FENCE
  - SILT FENCE
  - INLET PROTECTION
  - SOD (MNDOT SPEC. 2573.3)
  - DIRECTION OF PROPOSED FLOW

**OWNER:**  
 BARRY BAHL (OR DESIGNEE)  
 ST. CLOUD VA HEALTHCARE SYSTEM  
 4801 VETERANS DRIVE  
 ST. CLOUD, MN 56303

**GENERAL CONTRACTOR:**

**CONTRACTOR SWPPP QUALIFIED PERSONNEL:**

**ESTIMATED EROSION CONTROL QUANTITIES:**

SOD (MNDOT SPEC. 2573.3)	3700 SY
SILT FENCE	650 LF
INLET PROTECTION	7 EA
ROCK CONSTRUCTION ENTRANCE	540 SY
TEMPORARY CHAIN LINK FENCE	745 LF
ORANGE CONSTRUCTION FENCE	235 LF

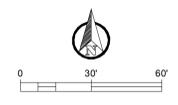
- NOTES:**
- SALVAGE AND REPLACE EXISTING TOPSOIL. SCREEN PRIOR TO PLACEMENT AND FERTILIZE UPON STABILIZATION.
  - SILT FENCE SHALL BE PROVIDED ON ALL AREAS DOWN GRADIENT OF CONSTRUCTION ACTIVITY.
  - INLET PROTECTION SHALL BE PROVIDED ON ALL CATCH BASINS AND INLETS DOWN GRADIENT OF CONSTRUCTION ACTIVITY AND AS INDICATED ON THE PLAN.
  - ALL DISTURBED AREAS SHALL BE RESTORED WITH 6" MINIMUM TOPSOIL AND STABILIZED WITH MNDOT SALT RESISTANT SOD SPEC. #3878.2C.
  - WHERE CONSTRUCTION TRAFFIC WILL LEAVE THE SITE, PROVIDE ROCK CONSTRUCTION ENTRANCE(S). IF SEDIMENT TRACKING SHOULD OCCUR, IT IS THE CONTRACTOR'S RESPONSIBILITY TO SWEEP STREETS AS NECESSARY TO MINIMIZE SEDIMENT TRACKING.

- SEQUENCE OF CONSTRUCTION:**
- INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE(S).
  - PROVIDE TEMPORARY CHAIN LINK CONSTRUCTION FENCE AROUND ENTIRE PERIMETER OF CONSTRUCTION AREA. INSTALL ORANGE CONSTRUCTION FENCE AROUND UNDERGROUND DETENTION/INFILTRATION SYSTEM (SEE DETAIL 3/C503). INSTALL ORANGE CONSTRUCTION FENCE AROUND SMOKE SHACK RELOCATION AREA.
  - INSTALL SILT FENCE.
  - CONTACT OWNER'S REPRESENTATIVE TO INSPECT BMP'S. GENERAL CONTRACTOR SHALL HOLD A STORM WATER PRE-CONSTRUCTION MEETING WITH ALL HIS SUB-CONTRACTORS PRIOR TO CONSTRUCTION.
  - PROVIDE INLET PROTECTION ON INLETS DOWN GRADIENT OF CONSTRUCTION ACTIVITY.
  - BEGIN GRADING THE SITE.
  - IF AN AREA WILL NOT ACTIVELY BE WORKED FOR MORE THAN 7 DAYS, TEMPORARILY SEED DISTURBED AREAS AND STABILIZE WITHIN 7 DAYS OF ACTIVELY BEING WORKED.
  - INSTALL STORM SEWER, UNDERGROUND DETENTION/INFILTRATION SYSTEM, ASSOCIATED PIPING AND STRUCTURES.
  - BACKFILL ALL TRENCHES IMMEDIATELY, AND AT THE END OF THE WORKING DAY, NO OPEN TRENCHES ALLOWED OVERNIGHT.
  - REINSTALL ANY DISTURBED INLET PROTECTION DEVICES.
  - PREPARE SITE FOR SURFACING.
  - CONSTRUCT CONCRETE WALK AND BITUMINOUS PAVEMENT.
  - COMPLETE FINAL GRADING WITH SALVAGED (SCREENED) TOPSOIL. FERTILIZE AND STABILIZE WITH SOD IMMEDIATELY AFTER COMPLETION OF GRADING.
  - ALL EROSION AND SEDIMENT CONTROL BMP'S TO BE APPROVED BY THE VA.
  - CONTRACTOR TO HAVE CERTIFIED PERSONNEL TO FOLLOW ALL SWPPP REQUIREMENTS.
  - REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED, AND APPROVED BY THE VA.)
  - CONTRACTOR TO WORK WITH THE VA TO OBTAIN ALL REQUIRED PERMITS.
  - ALL DISTURBED AREAS SHALL BE RESTORED AND STABILIZED WITHIN 7 DAYS OF CONSTRUCTION.

**ESC TIME SCHEDULE**

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR PROJECT SCHEDULE

CONSTRUCTION SEQUENCE (MONTH)	TEMPORARY CONTROL MEASURES	STRIP AND STOCKPILE TOPSOIL	ROUGH GRADE SEDIMENT CONTROL	STRUCTURE CONSTRUCTION	SITE CONSTRUCTION	STORM INSTALLATION	FINISH GRADING	TURF ESTABLISHMENT



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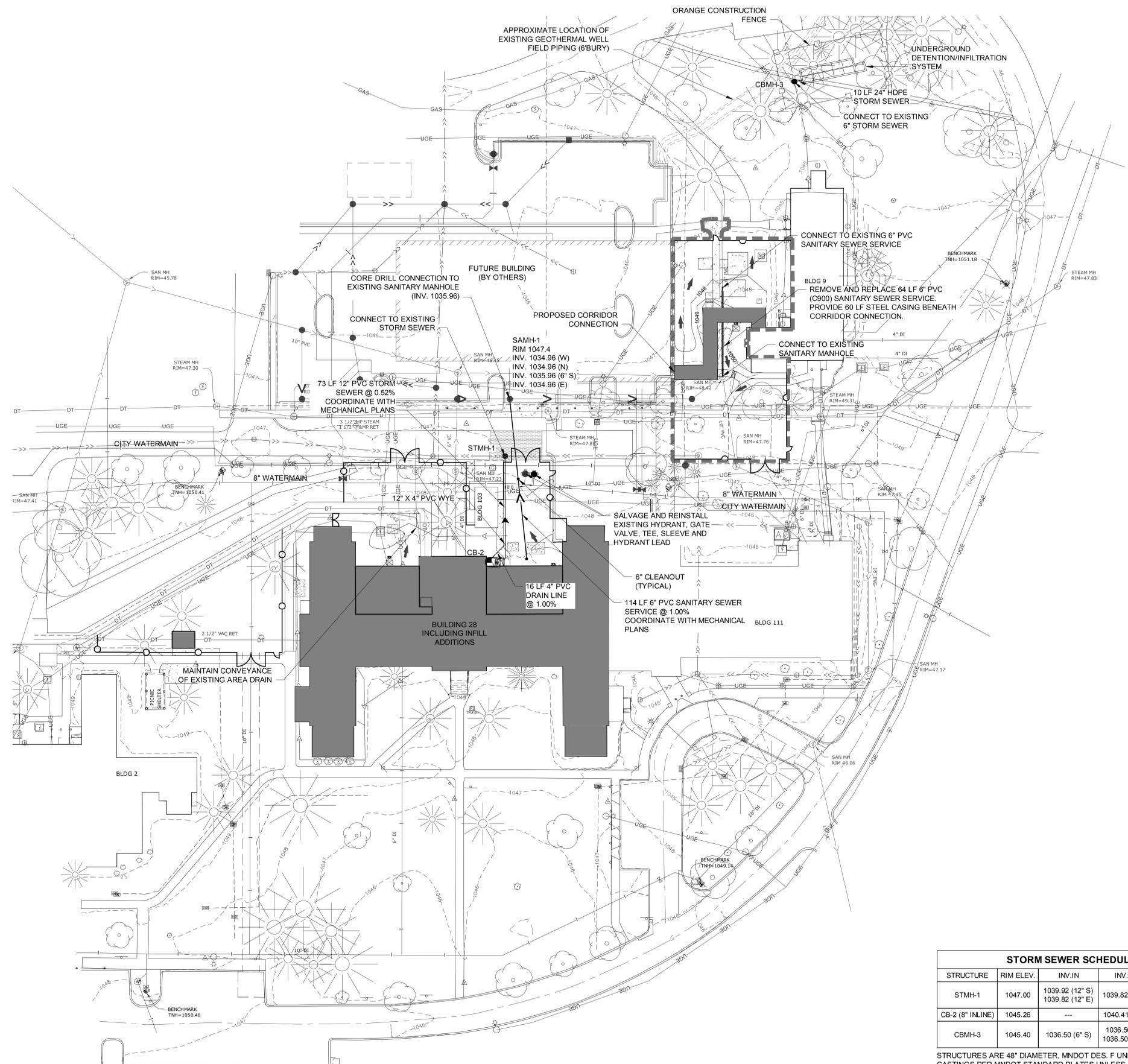
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 DESIGNER: [Signature]  
 DATE: 12-20-2013

**PROJECT TITLE:**  
 RECONFIGURE/EXPAND BUILDINGS 28 & 9 RESIDENTIAL REHABILITATION TREATMENT PROGRAM

**DATE:** 12.20.2013  
**PROJECT NO.:** 656-12-339  
**BLDG NO.:** 28  
**CHECKED BY:** DJF  
**DATE:** 12-20-2013



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 one and one half inches = one foot  
 one inch = one foot  
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 one eighth inch = one foot



- NOTES:**
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION, INCLUDING INSTALLATION OF CONSTRUCTION FENCE. CALL GOPHER STATE ONE CALL: 1-800-252-1166.
  - TEMPORARY CHAIN LINK CONSTRUCTION FENCE (8' TALL) SHALL BE PROVIDED AROUND ENTIRE PERIMETER OF CONSTRUCTION AREA. CONTRACTOR SHALL COORDINATE ACCESS THROUGH CONSTRUCTION FENCE WITH DAILY CONSTRUCTION ACTIVITY. ALL ENTRANCES/OPENINGS SHALL BE ENCLOSED AT ALL TIMES AND MONITORED FOR PASSAGE OF EQUIPMENT.
  - EQUIPMENT AND MATERIALS MAY NOT BE LEFT OVERNIGHT BEHIND ORANGE CONSTRUCTION FENCE.
  - COORDINATE WITH THE VA FOR WORK TO TAKE PLACE OUTSIDE THE LIMITS OF THE TEMPORARY CONSTRUCTION FENCE.
  - CONSTRUCTION LIMITS ARE TO ENCOMPASS PROJECT AREA, EQUIPMENT AND MATERIALS STORAGE/STAGING AND CONTRACTOR PARKING. NO OTHER AREA WILL BE MADE AVAILABLE TO THE CONTRACTOR FOR THESE PURPOSES DURING THE COMPLETION OF THE PROJECT.
    - CONTRACTOR PARKING: 10 PARKING STALLS WILL BE ALLOWED AT THE EAST CONTRACTOR PARKING LOT (PERMIT REQUIRED)
    - CONTRACTOR STORAGE TRAILER: 1 STORAGE TRAILER WILL BE ALLOWED AT THE EAST CONTRACTOR PARKING LOT
    - THE VA IS NOT RESPONSIBLE FOR ITEMS LOST OR STOLEN FROM CONTRACTOR VEHICLES OR STORAGE TRAILER.
  - CONSTRUCTION STAGING AREA WEST OF BUILDING 28 IS TO BE REMOVED FOLLOWING COMPLETION OF PHASE 2 SHELL. RESTORE AND REESTABLISH TURF PER PROJECT GENERAL NOTES AND SPECIFICATIONS.
  - ALL OPEN TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY. NO OPEN TRENCHES ALLOWED OVERNIGHT.
  - ALL EXCESS SOILS SHALL BE REMOVED FROM SITE.
  - COORDINATE UTILITY CONNECTIONS (SANITARY SEWER, STORM SEWER) WITH MECHANICAL PLANS.
  - WHERE SANITARY SEWER SERVICE PIPE IS INDICATED TO BE C900 PVC, CARRIER PIPE WILL HAVE BELL JOINT RESTRAINT AT EACH JOINT (SERIES 1900 RESTRAINT FOR AWWA C900 PVC PIPE AS MANUFACTURED BY EBAA IRON INC. OR APPROVED EQUAL.
  - STEEL CASING PIPE TO BE A MINIMUM 18" DIAMETER. CASING PIPE TO TERMINATE PRIOR TO MANHOLE.
  - UNDERGROUND STORMWATER DETENTION/INFILTRATION SYSTEM IS "STORMTECH" OR APPROVED EQUIVALENT.
 

**BASIC UNDERGROUND SYSTEM COMPONENTS:**

    - 11 SC-740 STORMTECH CHAMBERS (2 ROWS)
    - ISOLATOR ROW TO HAVE 6 CHAMBERS
    - ONE ROW TO HAVE 5 CHAMBERS
    - TOP ROCK = 1039.40
    - BOTTOM OF CHAMBERS = 1036.40
    - BOTTOM OF ROCK = 1035.40
    - OVERALL DIMENSION = 46.32' LONG X 11' WIDE X 4' HIGH
  - COORDINATE LOCATION AND CONFIGURATION OF STORMWATER DETENTION/INFILTRATION SYSTEM AND ASSOCIATED STORM SEWER TO ACCOMMODATE EXISTING GEOTHERMAL WELL FIELD PIPING AND EXISTING TREES.
  - INSTALLATION OF THE UNDERGROUND STORMWATER DETENTION/INFILTRATION SYSTEM INCLUDES THE FOLLOWING STEPS AND CONSTRUCTION METHODS:
    - ALL CONSTRUCTION MUST MINIMIZE THE COMPACTION OF NATURAL IN-PLACE SOILS BELOW THE BOTTOM OF INSTALLATION AS SHOWN ON THE PLANS.
    - EXCAVATION SHALL BE ACCOMPLISHED BY BACKHOE WITH THE TRENDS OF THE MACHINE EITHER A MINIMUM OF 3 FEET ABOVE GRADE OR OUTSIDE OF THE LIMITS OF THE INSTALLATION.
    - SLOPE TOP OF EXCAVATION AWAY FROM INSTALLATION ARE TO PREVENT INFLOW OF SEDIMENT.
    - FINAL GRADING OF THE BOTTOM OF INSTALLATION, BEFORE PLACEMENT OF GEOTEXTILE FABRIC AND OPEN GRADED AGGREGATE, SHALL BE ACCOMPLISHED BY WIDE PAD SMALL SIZE DOZER.
    - ONCE FINAL BOTTOM GRADE HAS BEEN ESTABLISHED, ONE DOUBLE RING INFILTRATION TEST (ASTM D3385-03) WILL BE COMPLETED BY THE GEOTECHNICAL CONSULTANT TO DETERMINE THE INFILTRATION CAPACITY OF THE LEAST PERMEABLE SOIL HORIZON WITHIN 5 FEET OF THE BOTTOM OF THE INSTALLATION. THE LOCATION OF THE TEST(S) WILL BE DETERMINED BY THE GEOTECHNICAL CONSULTANT. NEAR EACH TEST LOCATION THE DEPTH TO WATER TABLE WILL ALSO BE DETERMINED, AND THE RESULTS OF ALL TESTS WILL BE SUBMITTED TO THE ENGINEER FOR REVIEW. REPRESENTATIVES FROM THE VA AND THE SAUK RIVER WATERSHED DISTRICT MUST BE PRESENT DURING TESTING. EXCAVATION REQUIRED FROM THE TESTS AND TO DETERMINE THE LOCATION OF THE WATER TABLE WILL BE PROVIDED BY THE CONTRACTOR. ANY ADJUSTMENT TO THE DESIGN OF THE UNDERGROUND SYSTEM AND THE STORM SEWER WILL BE MADE AT THIS TIME. DO NOT INSTALL ANY OF THE STORM SEWER SYSTEM THAT CONNECTS TO THE UNDERGROUND SYSTEM UNTIL THE ENGINEER HAS DETERMINED IF DESIGN MODIFICATIONS TO THE UNDERGROUND SYSTEM AND/OR STORM SEWER SYSTEM ARE REQUIRED.
    - ONCE THE TEST RESULTS HAVE BEEN EVALUATED AND ANY MODIFICATIONS TO THE UNDERGROUND SYSTEM OR STORM SEWER HAVE BEEN DETERMINED, THE REMAINDER OF THE UNDERGROUND INSTALLATION CAN BE COMPLETED.
    - THE BOTTOM LAYER OF GEOTEXTILE FABRIC WILL BE INSTALLED BY HAND.
    - THE INITIAL BOTTOM LAYER OF OPEN GRADED AGGREGATE SHALL BE INSTALLED BY PLACING AGGREGATE WITH A BACKHOE AND DISTRIBUTED BY A WIDE PAD SMALL SIZE DOZER. THE BACKHOE WILL BE LOCATED OUTSIDE THE LIMITS OF THE INSTALLATION, AND THE DOZER WILL OPERATE FROM ON TOP OF THE AGGREGATE.
    - THE CHAMBER UNITS WILL BE INSTALLED BY HAND, WITH THE REMAINING AGGREGATE, HEADER PIPES, AND FABRIC INSTALLED BY HAND, BACKHOE, WIDE PAD OR OTHER APPROVED EQUIPMENT.

STORM SEWER SCHEDULE				
STRUCTURE	RIM ELEV.	INV. IN	INV. OUT	CASTING
STMH-1	1047.00	1039.92 (12" S) 1039.82 (12" E)	1039.82 (12" W)	700-7, 716
CB-2 (8" INLINE)	1045.26	---	1040.41 (4" NE)	STANDARD
CBMH-3	1045.40	1036.50 (6" S)	1036.50 (6" N) 1036.50 (12" W)	700-4, 721

STRUCTURES ARE 48" DIAMETER, MNDOT DES. F UNLESS NOTED OTHERWISE.  
 CASTINGS PER MNDOT STANDARD PLATES UNLESS NOTED OTHERWISE.



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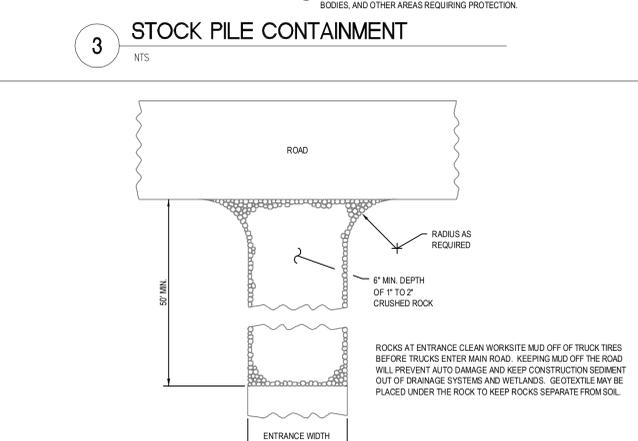
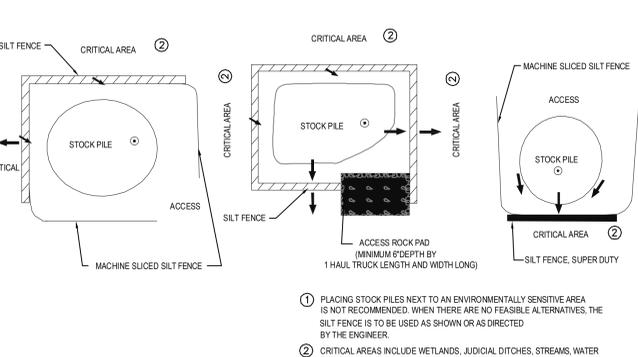
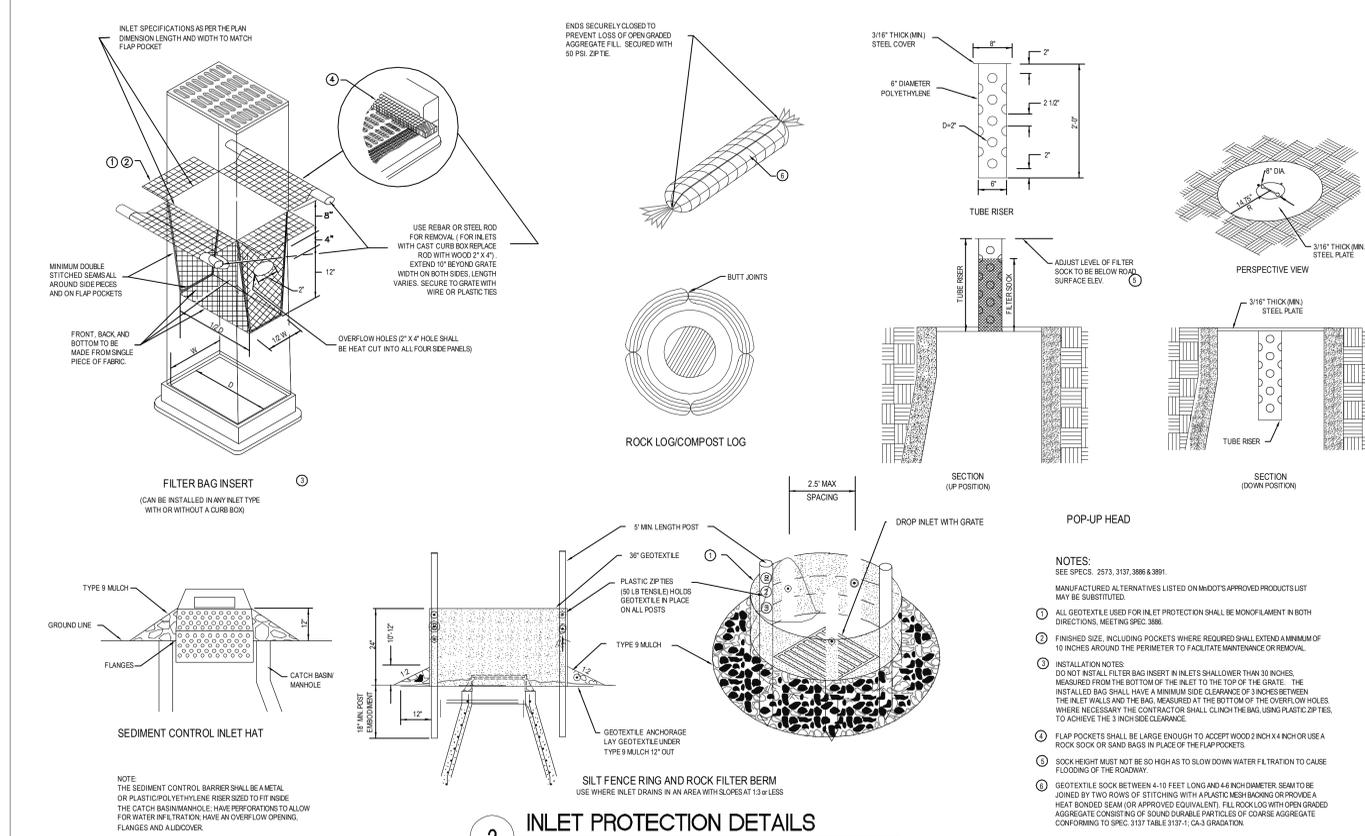
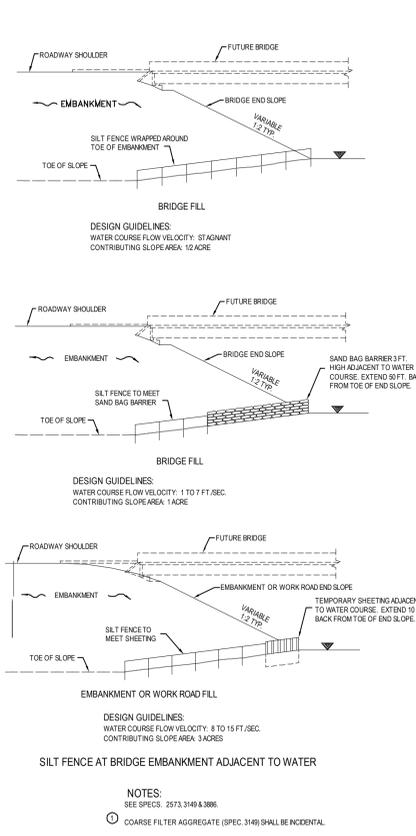
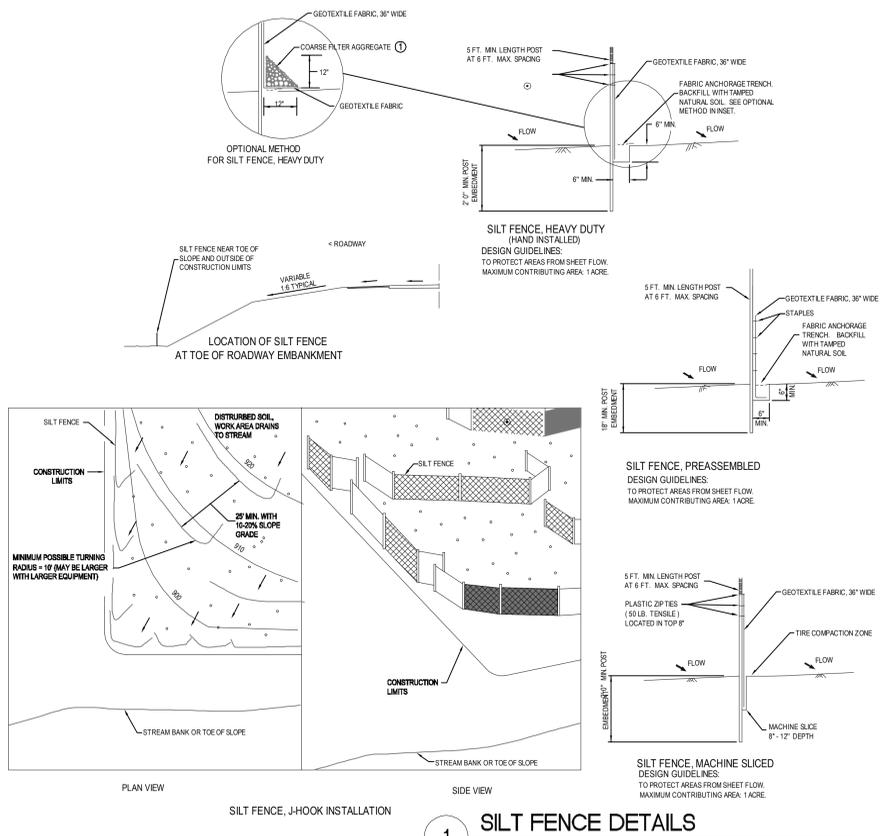
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 DATE: 12-20-2013

PROJECT TITLE  
 RECONFIGURE/EXPAND BUILDINGS 28 & 9 RESIDENTIAL REHABILITATION TREATMENT PROGRAM

APPROVED PROJECT DIRECTOR: [Signature]

DATE: 12-20-2013  
 PROJECT NO.: 656-12-339  
 SHEET NO.: 28  
 DRAWING NO.: CUT01





- EROSION NOTES**
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE CODES AND BE CONSTRUCTED AS SUCH. WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONS STANDARD SPECIFICATIONS AND DESIGN TREE ENGINEERING STANDARD SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY.
  - THE CONTRACTOR IS CAUTIONED THAT THE LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND THE VA. THE SUBSURFACE UTILITY INFORMATION SHOWN IS LEVEL D. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES. THE LOCATIONS OF UTILITIES SHALL BE OBTAINED BY CALLING MINNESOTA GOPHER STATE ONE CALL AND THE VA.
  - THE DESIGN SHOWN IS BASED UPON THE ENGINEERS UNDERSTANDING OF THE EXISTING CONDITIONS. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY, IT WILL BE CONTRACTORS RESPONSIBILITY AND EXPENSE TO HAVE TOPOGRAPHIC SURVEY DONE BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO OWNER FOR REVIEW.
  - THE CONTRACTORS SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES THAT MAY OCCUR.
  - THE SWPPP IS COMPRISED OF THE EROSION AND SEDIMENT CONTROL PLAN, THE STANDARD DETAILS, THE SWPPP NARRATIVE, PLUS THE PERMIT AND ALL RELATED DOCUMENTS.
  - THE CONTRACTOR SHALL ASSIST THE VA IN COMPLETING AND SUBMITTING THE APPLICATION FOR THE MPCA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND NPDES PERMIT AND BECOME FAMILIAR WITH THEIR CONTENTS. THE SWPPP AND ALL OTHER RELATED DOCUMENTS MUST BE KEPT ON SITE DURING CONSTRUCTION. CONTRACTOR MUST PROVIDE CERTIFIED PERSONNEL FOR SWPPP RECORDS.
  - CONTRACTOR SHALL IMPLEMENT BMP'S AS REQUIRED BY THE SWPPP AND PERMITS. THE CONTRACTOR SHALL OVERSEE THE INSPECTION AND MAINTENANCE OF THE BMP'S AND EROSION AND SEDIMENT PREVENTION FROM BEGINNING OF CONSTRUCTION TO COMPLETION OF CONSTRUCTION, AND NOTICE OF COMPLETION HAS BEEN FILED WITH THE MPCA BY EITHER THE OWNER OR THE OPERATOR ON THE PERMIT. ADDITIONAL BMP'S AND MAINTENANCE SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
  - BMP'S SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
  - ESC PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
  - THE CONTRACTOR SHALL MINIMIZE CLEARING AS REQUIRED BY THE GENERAL PERMIT. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED ON THE SITE BEFORE WORK BEGINS.

- GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AREA, EMPLOYEE PARKING AREA, AND AREA FOR PORTABLE FACILITIES. NO VEHICLE CLEANING ALLOWED ON SITE.
- NO TRUCK WASHOUT ALLOWED ON SITE.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS SHALL BE MAINTAINED ON SITE AND READILY AVAILABLE FOR USE.
- DUST ON THE SITE SHALL BE CONTROLLED.
- SOLID WASTE: CONSTRUCTION WASTE MUST BE DISPOSED OF PROPERLY, AND COMPLY WITH MPCA REQUIREMENTS.
- HAZARDOUS MATERIALS MUST BE PROPERLY STORED IN CONTAINERS, AND PROTECTED FROM ELEMENTS.
- ALL STORM WATER POLLUTION PREVENTION MEASURES ON THIS PLAN, AND IN THE SWPPP, MUST BE INITIATED PRIOR TO ANY SITE WORK.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED SHALL BE TEMPORARILY SEEDED. SEEDING WILL BE IN ACCORDANCE WITH MNDOT SPEC. 2575.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY ESTABLISHED.
- CONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENT BASINS.
- ON AND OFF SITE SOIL STOCK PILES AND BORROW AREAS SHALL BE PROTECTED WITH BMP'S.
- TEMPORARY STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT AND EROSION CONTROLS.
- SLOPES SHALL BE LEFT IN A ROUGH CONDITION TO HELP ELIMINATE RILLING.
- DUE TO GRADE CHANGES DURING THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE ESC MEASURES TO PREVENT EROSION AND SEDIMENTATION.
- ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH DAY. THIS INCLUDES BACKFILLING OF TRENCHES AND PLACEMENT OF GRAVEL OR BITUMINOUS.
- NO STOCKPILE OF MATERIALS NOT TO BE USED ON SITE.
- ALL EXCESS MATERIALS TO BE REMOVED FROM SITE DAILY.
- NO CONCRETE WASHOUT ALLOWED ON VA PROPERTY - TRUCKS TO BE TAKEN OFF SITE.

- MAINTENANCE**
- ALL MEASURES STATED ON THIS ESC PLAN, AND IN THE SWPPP SHALL BE MAINTAINED UNTIL NO LONGER REQUIRED. ALL ESC MEASURES SHALL BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
- ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION MUST BE PROTECTED BY BMP'S UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
  - ALL SODDED AREAS SHALL BE CHECKED TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE WATERED AND FERTILIZED AS NEEDED.
  - SILT FENCE SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION BY THE CONTRACTOR IF DAMAGED. SEDIMENT MUST BE REMOVED WHEN IT REACHES ONE THIRD THE HEIGHT OF THE SILT FENCE. THIS WORK MUST BE DONE WITHIN 24 HOURS OF DISCOVERY.
  - VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE MUST BE MINIMIZED BY BMP'S. STREET SWEEPING MUST BE USED IF BMP'S ARE NOT ADEQUATE TO PREVENT TRACKING. TRACED SEDIMENT MUST BE REMOVED WITHIN 24 HOURS.
  - THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION.
- SITE STAGING**
- CONTRACTOR TO PROVIDE A FINALIZED PLAN FOR VA APPROVAL SHOWING PARKING, STAGING, CONSTRUCTION FENCES, AND STORAGE AREAS PRIOR TO ANY WORK TAKING PLACE.
  - CONTRACTOR PARKING, STORAGE, AND INITIAL STAGING CAN BE LOCATED WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE DRAWINGS.
  - MAINTAIN STAFF AND PATIENT ACCESS TO ALL BUILDINGS.
  - WORK TO BE DONE IN STREETS MUST BE APPROVED BY VA STAFF. WORK MUST BE DONE BETWEEN THE HOURS OF 6:00 PM AND 6:00 AM. ROADS MUST BE OPENED TO TRAFFIC BY 6:00 AM THE FOLLOWING DAY. CONTRACTOR MUST PROVIDE A TRAFFIC CONTROL AND DETOUR PLAN TO VA. ALL EMERGENCY SERVICES MUST BE NOTIFIED.

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**St. Cloud VA Health Care System**  
Brainerd | Montevideo | Alexandria

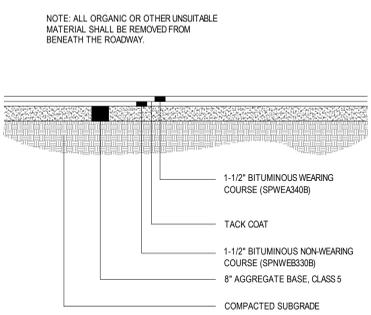
**Design Tree**  
ENGINEERING AND LAND SURVEYING

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St. Cloud Office: 3539 West St. Germain, Suite 250, St. Cloud, MN 56301 (507) 217-9337

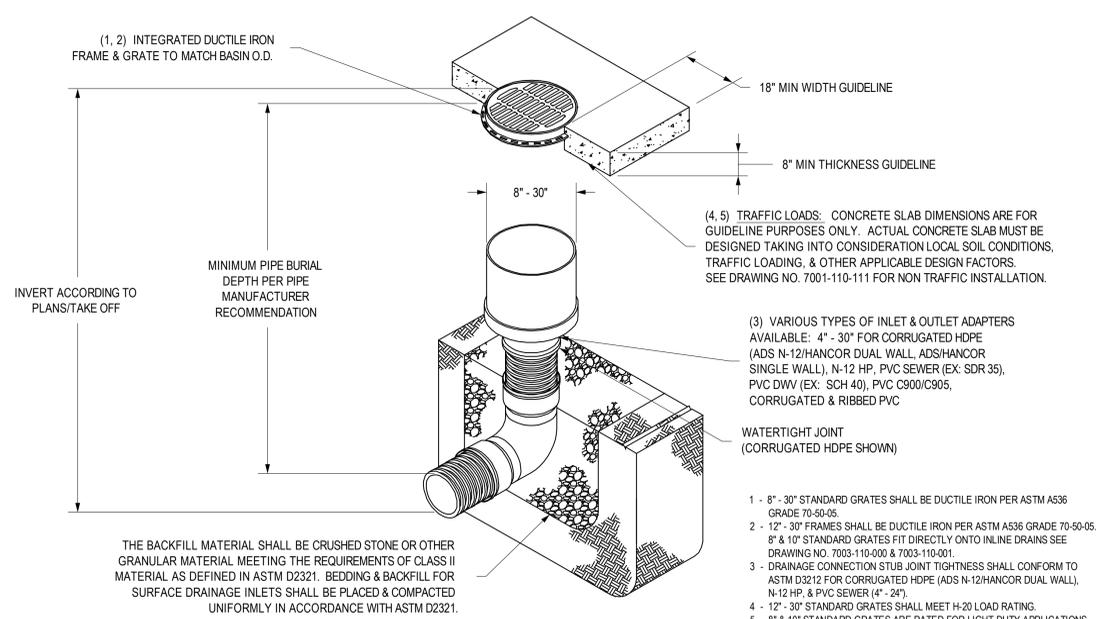
**JLC architects**  
Alexandria, MN 56308  
phone: 320.759.9330  
facsimile: 320.759.9162  
www.jlcarchitects.com  
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DTE 02212001

STAMPED: DESIGNED BY: JLC ARCHITECTS CHECKED BY: JLC ARCHITECTS DATE: 12-20-2013	DATE: 12-20-2013	PROJECT TITLE: RECONFIGURE/EXPAND BUILDINGS 28 & 9 RESIDENTIAL REHABILITATION TREATMENT PROGRAM	DATE: 12-20-2013
DATE: 12-20-2013	DATE: 12-20-2013	DATE: 12-20-2013	DATE: 12-20-2013



**1 TYPICAL BITUMINOUS PATCH DETAIL**  
NTS

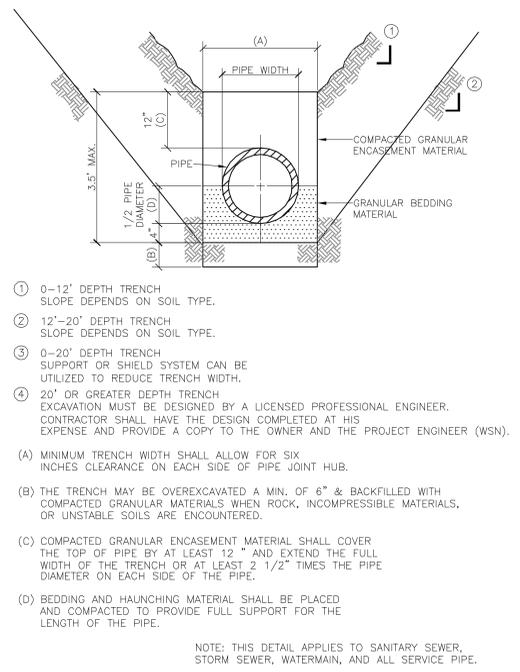


NOTE: DETAIL SHOWN IS FOR THE NYLOPLAST INLINE DRAIN TO PROVIDE A BASIS FOR COMPARISON TO OTHER PRODUCTS. SUBMIT OTHER PRODUCT FOR APPROVAL PRIOR TO SUBMITTING A BID.

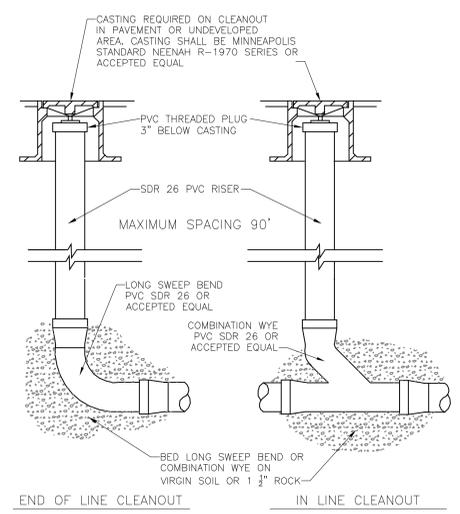
**2 NYLOPLAST INLINE DRAIN DETAIL**  
NTS

**Nyloplast**  
3130 VERONA AVE  
BUFORD, GA 30518  
PHN (770) 932-2443  
FAX (770) 932-2400  
www.nyloplast-us.com

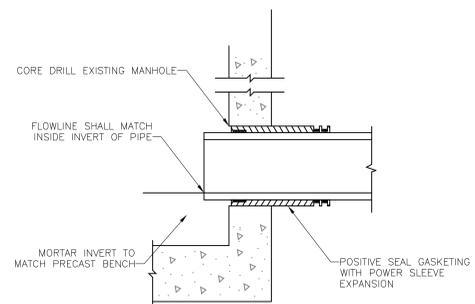
TITLE	INLINE DRAIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL	
DWG NO.	7003-110-022	REV H



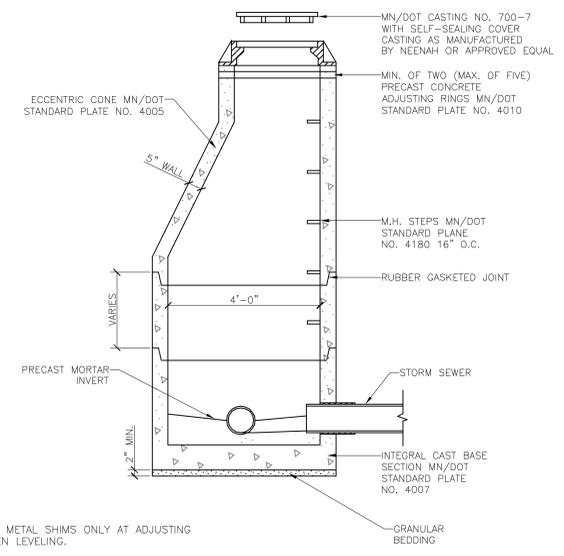
**3 TYPICAL PIPE BEDDING DETAIL**  
NTS



**4 CLEANOUT CASING**  
NTS



**5 CORE DRILL DETAIL**  
NTS



**6 STANDARD DESIGN 'F' STORM MANHOLE**  
NTS

**100% CD SET**

NO.	REVISION	DATE



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(507) 217-5537

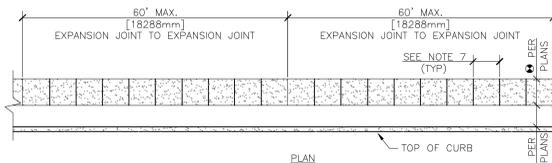
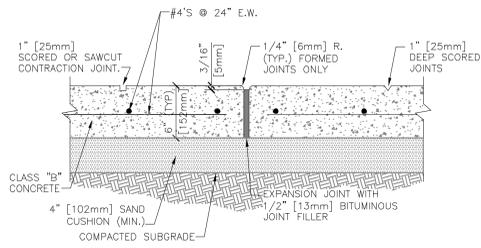


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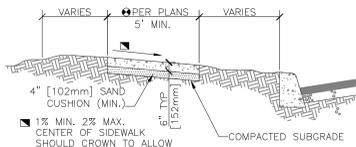
STAMPED:  
DESIGNED BY: [Signature]  
DATE: 12-20-2013

DESIGNED BY <b>CIVIL DETAILS</b>	PROJECT TITLE RECONFIGURE/EXPAND BUILDINGS 28 & 9 RESIDENTIAL REHABILITATION TREATMENT PROGRAM	DATE 12.20.2013
APPROVED PROJECT DIRECTOR	DATE	PROJECT NO. 656-12-339
DRAWING NO. 28	CHECKED BY DJF	DATE FILED GMD
LOCATION ST. CLOUD VA MEDICAL CENTER ST. CLOUD, MN 56303	DRAWING NO. CS02	

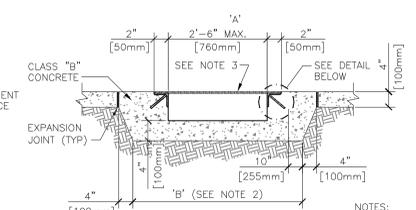
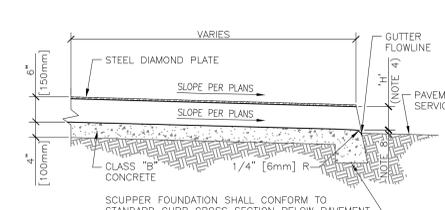




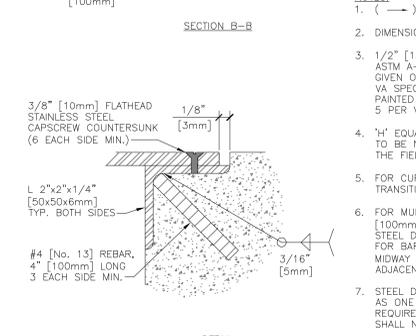
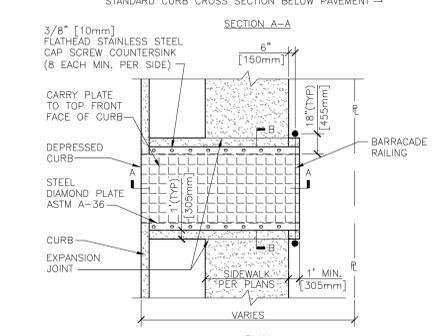
- NOTES:
- EXPANSION JOINTS SHALL BE LOCATED WHERE SIDEWALK ABUTS CONCRETE DRIVEWAYS, CURB OR OTHER ADJACENT STRUCTURES.
  - ONE-HALF INCH BITUMINOUS JOINT FILLER SHALL BE INSTALLED AT EXPANSION JOINT LOCATIONS AND SHALL EXTEND THE FULL DEPTH OF THE CONCRETE.
  - 1" DEEP CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 15' [4572mm] OR AT A SPACING THAT MATCHES THE ADJACENT CURB.
  - FORMED CONTRACTION JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4" [6mm] RADIUS.
  - SCORED JOINTS SHALL BE 1" [25mm] DEEP AND PLACED AT THE SPACING INDICATED FOR THE WIDTH OF SIDEWALK OR MATCH SCORED JOINTS OF ADJACENT CURB.
  - CONCRETE SHALL BE FINISHED BY MEANS OF A FLOAT, STEEL TROWELLED AND BROOMED WITH A FINE BRUSH IN A TRANSVERSE DIRECTION.
  - 1" [25mm] DEEP SCORED JOINTS (TYP) SPACED AT 6' [1829mm] OR EQUAL TO SIDEWALK WIDTH.
  - PROVIDE #4 DOWELS 12" [305mm] O.C. AT CONSTRUCTION JOINTS.



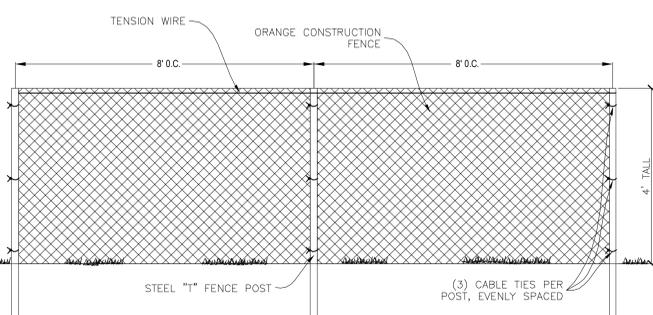
### 1 CONCRETE SIDEWALK



- NOTES:
- (---) INDICATES DIRECTION OF FLOW.
  - DIMENSION 'B' EQUALS 'A'+1' [305mm].
  - 1/2" [13mm] THICK STEEL DIAMOND PLATE ASTM A-36. STEEL DIAMOND PLATE SHALL BE GIVEN ONE SHOP COAT OF PAINT NO.1 PER VA SPECIFICATIONS. EXPOSED METAL SHALL BE PAINTED WITH TWO COATS OF SSPC PAINT NO. 5 PER VA SPECIFICATIONS.
  - 1" EQUALS CURB FACE HEIGHT. DIMENSION TO BE NOTED ON PLANS OR ESTABLISHED IN THE FIELD.
  - FOR CURB AND GUTTER, USE 2" [610mm] TRANSITIONS TO VERTICAL CURB.
  - FOR MULTIPLE SCUPPERS PROVIDE 4" [100mm] BETWEEN ADJACENT PANELS OF STEEL DIAMOND PLATE. INTERMEDIATE POSTS FOR BARRICADE RAILINGS SHALL BE PLACED MIDWAY IN 4" [100mm] AREA BETWEEN ADJACENT PANELS.
  - STEEL DIAMOND PLATE SHALL BE DELIVERED AS ONE PIECE, CONFORMING TO THE REQUIRED SCUPPER DIMENSIONS. PLATES SHALL NOT BE SPLICED.
  - PROVIDE A MIN. 1" [25mm] UP BETWEEN FLOW LINE OF SCUPPER AND PAVEMENT SURFACE.



### 2 SIDEWALK SCUPPER - TYPE 2



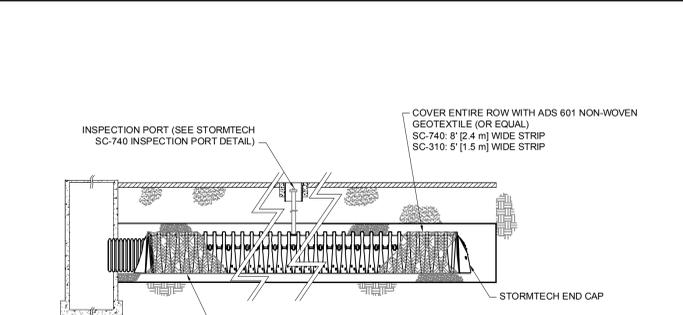
### 3 ORANGE CONSTRUCTION FENCE

### STORMTECH GENERAL NOTES

- STORMTECH REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEMS CONSTRUCTION. CALL 1-888-892-2694 TO SPEAK TO A TECHNICAL SERVICES REPRESENTATIVE OR VISIT [WWW.STORMTECH.COM](http://WWW.STORMTECH.COM) TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.) MINIMUM COVER IS 9" [457 mm] NOT INCLUDING PAVEMENT. MAXIMUM COVER IS 9" [238 mm] INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24" [610 mm], MAXIMUM COVER IS 9" [238 mm].
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
- ASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- BACKFILL OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: [WWW.STORMTECH.COM](http://WWW.STORMTECH.COM). THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2694 OR VISIT [WWW.STORMTECH.COM](http://WWW.STORMTECH.COM)

STORMTECH GENERAL NOTES

SCALE: N/A  
DATE: 3/30/10  
DRAWN BY: KJL  
CHECKED:



ISOLATOR ROW PROFILE

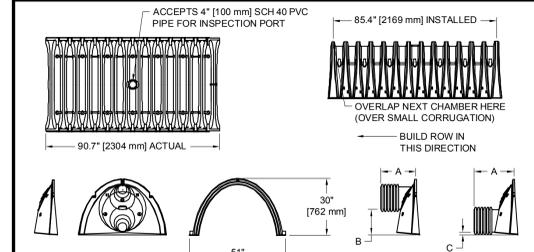
SCALE: N/A  
DATE: 6/15/11  
DRAWN BY: KJL  
CHECKED:

### STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740, SC-310 OR APPROVED EQUAL.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS TESTED USING ASTM STANDARDS.
- CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE ASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.
- ONLY CHAMBERS THAT ARE APPROVED BY THE ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
  - A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET; THE 50-YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2922 MUST BE USED AS A PART OF THE ASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
- CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
- ALL DESIGN SPECIFICATIONS FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
- THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

STORMWATER CHAMBER SPECIFICATIONS

SCALE: N/A  
DATE: 6/09/11  
DRAWN BY: KJL  
CHECKED:



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W x H x INSTALLED LENGTH) 51.0" x 30.0" x 85.4" [1295 mm x 762 mm x 2169 mm]

CHAMBER STORAGE 45.9 CUBIC FEET [1.30 m<sup>3</sup>]

MINIMUM INSTALLED STORAGE 74.9 CUBIC FEET [2.12 m<sup>3</sup>]

WEIGHT 75 lbs. [33.6 kg]

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"

STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART#	STUB	A	B	C
SC740EP00T	6" [150 mm]	10.90" [277 mm]	18.50" [470 mm]	N/A
SC740EP00B	6" [150 mm]	10.90" [277 mm]	N/A	0.50" [13 mm]
SC740EP01T	8" [200 mm]	12.20" [310 mm]	16.50" [419 mm]	N/A
SC740EP01B	8" [200 mm]	12.20" [310 mm]	N/A	0.60" [15 mm]
SC740EP10T	10" [250 mm]	13.40" [340 mm]	14.50" [368 mm]	N/A
SC740EP10B	10" [250 mm]	13.40" [340 mm]	N/A	0.70" [18 mm]
SC740EP12T	12" [300 mm]	14.70" [373 mm]	12.50" [318 mm]	N/A
SC740EP12B	12" [300 mm]	14.70" [373 mm]	N/A	1.20" [30 mm]
SC740EP15T	15" [375 mm]	18.40" [467 mm]	9.00" [229 mm]	N/A
SC740EP15B	15" [375 mm]	18.40" [467 mm]	N/A	1.30" [33 mm]
SC740EP18T	18" [450 mm]	19.70" [500 mm]	5.00" [127 mm]	N/A
SC740EP18B	18" [450 mm]	19.70" [500 mm]	N/A	1.60" [41 mm]
SC740EP24B	24" [600 mm]	18.50" [470 mm]	N/A	0.10" [3 mm]

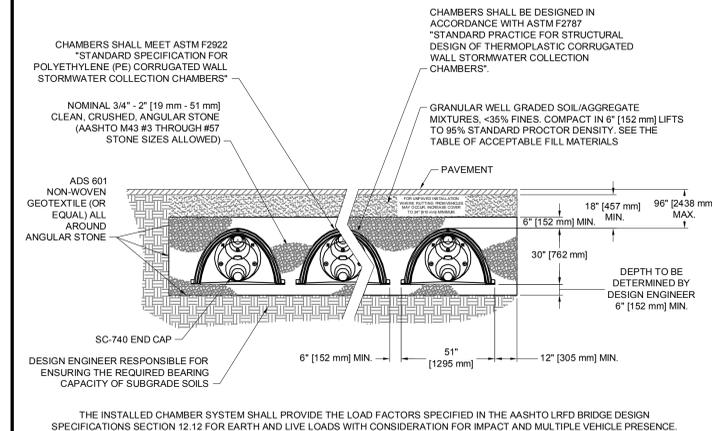
ALL STUBS, EXCEPT FOR THE SC740EP24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

\*FOR THE SC740EP24B THE 24" [600 mm] STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" [44 mm]. BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

SC-740 TECHNICAL SPECIFICATIONS

SCALE: N/A  
DATE: 3/30/10  
DRAWN BY: KJL  
CHECKED:



SC-740 TYPICAL CROSS-SECTION

SCALE: N/A  
DATE: 08-22-12  
DRAWN BY: JLM  
CHECKED:

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 AND SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	ASHTO M3 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
1	FILL MATERIAL FOR LAYER 2 STARTS FROM THE TOP OF THE CLAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUB-BASE MAY BE PART OF THIS LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
2	FILL MATERIAL FOR LAYER 3 STARTS FROM THE TOP OF THE CHAMBER TO THE TOP OF THE SUBGRADE. NOTE THAT PAVEMENT SUB-BASE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES. COMPACT IN 6" [152 mm] LIFTS TO A MIN. 98% STANDARD PROCTOR DENSITY. SOILS WHICH WEIGHT NOT TO EXCEED 12,000 LB (5,443 kg) DYNAMIC FORCE NOT TO EXCEED 20,000 LB (9,072 kg)	BEGIN COMPACTION AFTER 12" [305 mm] OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" [152 mm] LIFTS TO A MIN. 98% STANDARD PROCTOR DENSITY. 12,000 LB (5,443 kg) DYNAMIC FORCE NOT TO EXCEED 20,000 LB (9,072 kg)
3	EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE CLAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH [19 - 51 mm]	NO COMPACTION REQUIRED.
4	FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT BOTTOM OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH [19 - 51 mm]	PLATE COMPACT OR ROLL TO ACHIEVE A 98% STANDARD PROCTOR DENSITY.

STORMTECH ACCEPTABLE FILL

SCALE: N/A  
DATE: 3/30/10  
DRAWN BY: KJL  
CHECKED:

### 4 STORMTECH DETAILS

100% CD SET

STAMPED: CIVIL DETAILS

PROJECT: RECONFIGURE/EXPAND BUILDINGS 28 & 9 RESIDENTIAL REHABILITATION TREATMENT PROGRAM

DATE: 12.20.2013

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

DATE: 12-20-2013

PROJECT: ST. CLOUD VA MEDICAL CENTER ST. CLOUD, MN 56303

DATE: 12-20-2013

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

DATE: 12-20-2013

No.	REVISION	DATE



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DATE: 12-20-2013

PROJECT: ST. CLOUD VA MEDICAL CENTER ST. CLOUD, MN 56303

DATE: 12-20-2013



**PROJECT DESCRIPTION:**

THE WORK ON THE PROJECT INCLUDES THE CONSTRUCTION OF TWO INFILL ADDITIONS AT BUILDING 28 AS WELL AS THE CONSTRUCTION OF A CORRIDOR LINK BETWEEN BUILDING 9 AND THE FUTURE INTERMEDIATE PSYCH BUILDING. CONSTRUCTION INCLUDES ASSOCIATED SIDEWALK, SANITARY SEWER SERVICES, WATERMAIN MODIFICATIONS, AND STORM SEWER CONSTRUCTION, INCLUDING THE CONSTRUCTION OF AN UNDERGROUND DETENTION/INFILTRATION SYSTEM. THE PROJECT IS LOCATED ON THE VA HEALTH CARE SYSTEM CAMPUS ALONG THE SAUK RIVER IN ST. CLOUD, STEARNS COUNTY, MINNESOTA. THE VA HEALTH CARE SYSTEM CAMPUS IS LOCATED NORTH AND WEST OF THE INTERSECTION OF VETERANS DRIVE AND 44TH AVENUE NORTH.

**RECEIVING WATERS:**

THE RECEIVING WATER IS THE SAUK RIVER WHICH IS THE NORTHERLY BORDER OF THE PROPERTY, AND IS LISTED BY THE MPCA AS IMPAIRED.

**RESPONSIBLE PARTIES:**

THE ST. CLOUD VA AND THE CONTRACTOR ARE RESPONSIBLE CO-PERMITTEES FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, INSPECTION, MAINTENANCE, AND REPAIR OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S BEFORE, DURING, AND AFTER ACTIVE CONSTRUCTION. THE ST. CLOUD VA IS RESPONSIBLE FOR THE LONG-TERM OPERATIONS AND MAINTENANCE OF ALL PERMANENT STORMWATER MANAGEMENT SYSTEMS. THE CONTRACTOR IS LIABLE UNTIL FINAL STABILIZATION OF ALL DISTURBED AREAS IS ACHIEVED AND THE NOTICE OF TERMINATION (NOT)/PERMIT MODIFICATION FORM IS SUBMITTED TO THE MPCA (AS SPECIFIED IN THE NPDES CONSTRUCTION PERMIT.)

PROJECT ENGINEER	ST. CLOUD VA	CONTRACTOR
GINA M. DULLINGER, PE		TBD
DESIGN TREE ENGINEERING, INC.		
3339 W. ST. GERMAIN, SUITE 250		
ST. CLOUD, MN 56301		
(320) 217-5557		
GMD@DESIGNTREEENGINEERING.COM		

**CONSTRUCTION NOTES:**

CONSTRUCTION SHALL BE GOVERNED BY MNDOT SPECIFICATIONS, SPECIAL PROVISIONS, AMENDMENTS AND THE PROJECT SPECIFICATIONS AND DETAIL PLATES. PERMITS AND MAPS RELATING TO THE PROJECT'S SWPPP CAN BE FOUND IN THE PROJECT MANUAL. THE CONTRACTOR SHALL KEEP THE INSPECTION AND MAINTENANCE LOG ON-SITE AT ALL TIMES DURING ACTIVE CONSTRUCTION. PLEASE REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SWPPP INFORMATION.

**SPECIAL WATER, IMPAIRED WATER & TMDL IMPLEMENTATION PLANS:**  
THE SAUK RIVER IS LISTED AS IMPAIRED. ALL DISTURBED AREAS NOT ACTIVELY BEING WORKED MUST BE STABILIZED WITHIN 7 DAYS. RUNOFF FROM THE PROJECT FLOWS DIRECTLY TO THE RIVER. ST. CLOUD VA IS RESPONSIBLE FOR THE LONG TERM MAINTENANCE OF THE PROJECT. INLET PROTECTION, SILT FENCES, FINAL STABILIZATION, AND BMP'S MUST BE IMPLEMENTED PRIOR TO ALLOWING ANY WATER RUNOFF TO BE COLLECTED WITHIN THE ST. CLOUD VA STORM SEWER COLLECTION SYSTEM.

**CALCULATIONS:**

AREA TO BE DISTURBED = 1.00 AC  
PRE-CONSTRUCTION IMPERVIOUS AREA = 0.18 AC  
POST-CONSTRUCTION IMPERVIOUS AREA = 0.24 AC  
NET INCREASE IN IMPERVIOUS AREA = 0.06 AC

**TIMING OF BMP INSTALLATION:**

THE EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ON SITE AND SHALL MEET THE NPDES PERMIT PART IV CONSTRUCTION ACTIVITY REQUIREMENTS. PERIMETER CONTROLS SHALL BE PLACED PRIOR TO THE START OF ANY CONSTRUCTION. ALL DISTURBED AREAS NOT ACTIVELY BEING WORKED MUST BE STABILIZED WITHIN 7 DAYS.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

THE PERMITTEES MUST IMPLEMENT THE ENTIRE SWPPP AND THE REQUIREMENTS OF THE NPDES PERMIT. THE BMP'S IDENTIFIED IN THE SWPPP AND IN THE PERMIT MUST BE SELECTED, INSTALLED AND MAINTAINED IN AN APPROPRIATE AND FUNCTIONAL MANNER THAT IS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES.

**CONTACTS:**

AGENCY	PERMIT	NAME	PHONE NUMBER
Stearns County		Wayne Cymbaluk	(320) 656-3613
DNR Waters		Janel Miersch	(218) 739-7576 Ext. 232
ACOE		St. Paul Office	(651) 290-5375
State Duty Officer		MPCA	(800) 422-0798
SWPPP Designer		Gina M. Dullinger, PE	(320) 217-5557
Erosion Control Review		Daniel J. Folsom, PE	(320) 217-5557
Erosion Control Supervisor		TBD	

**LOCATION OF SWPPP REQUIREMENTS:**

DESCRIPTION	TITLE	SHEET # OR SPECIFICATION SECTION
Receiving Surface Water	Sauk River	N/A
Final Stabilization	Erosion Control Plan	CG102
Drainage Plans	Site Grading and Drainage Plan	CG101
Drainage Details	Civil Details	C502, C503
Erosion Control Sheets	Erosion Control Plan	CG102
Erosion Control Details	Erosion Control/SWPPP Details	C501

**SEQUENCE OF CONSTRUCTION:**

CONTRACTOR TO VERIFY THAT ALL APPLICABLE PERMITS HAVE BEEN OBTAINED AND NPDES PERMIT MODIFICATION FORM HAS BEEN SUBMITTED TO MPCA PRIOR TO THE START OF CONSTRUCTION.

1. PERMITTEE MUST PLAN FOR AND IMPLEMENT CONSTRUCTION PHASING, VEGETATION BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION, SO THAT THE INSPECTION AND MAINTENANCE REQUIREMENTS OF PART IV E. OF THE NPDES CONSTRUCTION PERMIT ARE COMPLIED WITH. THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE DELINEATED ON THE PROJECT BEFORE SITE WORK BEGINS.
2. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ACHIEVED.
3. CONTRACTOR TO ROUGH GRADE SITE AND PERFORM SITE CONSTRUCTION, THEN INSTALL AND MAINTAIN ALL TEMPORARY/PERMANENT EROSION CONTROL BMP'S AS SHOWN ON PLANS AND IN CONFORMANCE WITH NPDES CONSTRUCTION PERMIT REQUIREMENTS.
4. CONTRACTOR TO ACHIEVE FINAL STABILIZATION PRIOR TO SUBMISSION OF NOTICE OF TERMINATION.

**DEWATERING AND BASIN DRAINING:**

DEWATERING OR BASIN DRAINING THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASIN MUST BE VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT IS OBTAINED IN THE BASIN AND NUISANCE CONDITIONS, IMPACTS TO WETLANDS, AND EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES WILL NOT RESULT FROM THE DISCHARGE. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.

**SOLID WASTE:**

COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.

**HAZARDOUS MATERIALS:**

OIL, GASOLINE, PAINT AND HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

**CONCRETE WASHOUT ON-SITE:**

ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS.

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

**100% CD SET**

No	REVISION	DATE



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STAMPED:  
GINA M. DULLINGER, PE  
DATE: 12-20-2013

DATE: 12-20-2013

PROJECT TITLE RECONFIGURE/EXPAND BUILDINGS 28 & 9 RESIDENTIAL REHABILITATION TREATMENT PROGRAM	DATE 12.20.2013
PROJECT NO. 656-12-339	DATE 12.20.2013
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